

REMARKS

After entry of this amendment, claims 1-31 are pending. Claim 7 has been amended to correct the clerical error as suggested by the Examiner. Support is found, *inter alia*, in the claim as previously presented. No new matter has been added.

In response to the restriction requirement set forth in the Office Action mailed February 6, 2007, Applicants provisionally elect Group I (claims 1-10 and 21-26), the marker protein cytosine deaminase (codA), the compound 5-fluorocytosine as substance X, and GenBank Accession No. S56903 and the corresponding amino acid sequence of SEQ ID NO: 2 with traverse. Reconsideration and withdrawal of the restriction requirement is strongly urged for the following reasons.

The Claimed Inventions Share a Special Technical Feature

Because this application is a national stage filing pursuant to 35 U.S.C. § 371, unity of invention under PCT Rule 13.1 and 13.2 is the applicable standard. Unity of invention is fulfilled “when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical feature. The expression ‘special technical feature’ shall mean those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art.” (PCT Rule 13.2).

The Examiner alleges that the groups lack unity because the technical feature linking the claims, a marker gene capable of directly or indirectly causing a toxic effect, is anticipated by Gleave et al. (Plant Molecular Biology, 1999, 40: 223-235). Applicants respectfully disagree that the inventions of the present application do not make a contribution over the reference cited by the Examiner.

As stated in the specification, the invention relates to a process for preparing transformed plant cells by transforming a population of plant cells containing at least one marker protein having a direct or indirect toxic effect to said cell population, with at least one nucleic acid sequence to be inserted in combination with at least one compound, preferably a DNA construct, that is capable of reducing the expression or activity of the marker protein. See Specification at page 1, lines 7-14. As recited in the claims, the compound is preferably a double-stranded ribonucleic acid (dsRNA) sequence or expression cassette(s) thereof that is capable of reducing

the expression of the marker protein. See, for example, claim 1. Applicants respectfully submit that the cited reference does not teach this technical feature.

The Gleave et al. reference teaches retransformation of plant cells containing two marker genes, *nptII* and *codA*, with a T-DNA that contains *cre* and *hpt* genes. Due to the *cre* recombinase activity, the *nptII* and *codA* marker genes are excised in the transformed cells, which results in that cytosine deaminase (*codA* gene product) is not produced, and 5-fluorocytosine (5-fc) is no longer converted to toxic 5-fluorouracil by the transformed cells. As a result, 5-fc can be used to select the transformed cells. Nevertheless, the Gleave reference does not teach a method for producing transformed plant cells involving transformation with a nucleic acid sequence in combination with a dsRNA or an expression cassette thereof to reduce the expression of the marker protein. Accordingly, it is clear that the present invention is distinct over the cited reference in view of the mechanism employed to achieve the reduction of the expression of the marker protein, which further defines a contribution over the prior art.

Furthermore, the claims in Groups I-V share this special technical feature. The claims of Group I relate to a process for preparing transformed plant cells by introducing the dsRNA sequence or expression cassette(s) together with another nucleic acid sequence into the cells containing at least a marker protein. The claims of Groups II and III relate to the amino acid sequence and nucleotide sequence of one potential marker protein that can be used in the process of Group I. The claims of Group IV relate to the dsRNA or a vector containing the same that is essential for practicing the process of Group I. The claims of Group V relate to transgenic plants resulted from the process of Group I. Since these claims share the same common technical feature relating to transforming a dsRNA sequence or expression cassette thereof to reduce the expression of at least one marker protein, they should be considered together as having unity of invention, and could be examined together with minimal burden.

Moreover, Applicants respectfully submit that the restriction requirement should be withdrawn even under restriction practice. As stated in § 803 of the M.P.E.P. “ [i]f the search and examination of the entire application can be made without serious burden, the examiner must examine it on the merits, even though it includes claims to independent or distinct inventions.” (M.P.E.P. § 803, emphasis added). Because the same art relevant to production of transgenic plant cells by transforming into a marker protein-containing plant cell a dsRNA sequence or

expression cassette thereof to reduce the expression of the marker protein would be relevant to the dsRNA or expression cassette used for the transformation and the transgenic plants so produced, the same art would also be relevant to the marker protein used for the production of transgenic plants, there would be no undue burden on the Examiner to search and examine all Groups together.

For these reasons, Applicants respectfully request that the restriction requirement be reconsidered and withdrawn entirely. In the alternative, Applicants respectfully request that at least Groups I, IV and V be considered together.

Restriction to a Single Gene Sequence Is Improper

If Restriction Group I, IV, or V is elected, then the Examiner further requires election of one single gene sequence reasoning that the different nucleotide sequences and amino acid sequences are structurally distinct and do not share a common technical feature. Applicants strongly disagree with this requirement and request reconsideration and withdrawal.

The invention can be used with many different combinations of marker protein and dsRNA or expression cassette thereof that is capable of reducing the expression of marker protein in a transgenic plant. Restriction to a particular gene unduly narrows the claims and forces Applicants to file a multitude of applications to cover their invention. The Examiner states that the different genes do not share a core structure or common property and thus are not of a similar nature. Yet the processes of the invention can be used on all these genes in a similar manner to produce transgenic plants with reduced expression of these genes by transforming the corresponding dsRNA or an expression cassette thereof. The different genes all encode marker proteins that are suitable for practicing the present invention, and thus share a common property required for action by the invention. Thus, Applicants respectfully request that the requirement for restriction to one sequence be reconsidered and withdrawn.

Restriction to a Single Species Is Improper

The Examiner further requires election of species as of follows: one of the compounds X listed in claim 4, one of the marker proteins listed in claims 5, 21, and 23, and one of the plant species listed in claim 19. Because claim 19 is not in elected Group I, we have not elected a

plant species. The claims that are readable on these species are claims 4, 5, 21 and 23.
Reconsideration and withdrawal of the restriction requirement is respectfully requested.

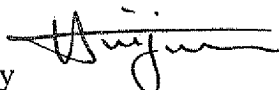
CONCLUSION

For at least the above reasons, Applicants respectfully request that the restriction requirement be reconsidered and withdrawn and that all the claims be examined in one application. In the alternative, Applicants respectfully request that at least Groups I, IV and V be considered together.

Applicants submit herewith a copy of the English translation of International Preliminary Examination Report (IPER). The references cited therein have been previously submitted to the USPTO.

Accompanying this response is a petition for a one-month extension of time to and including April 6, 2007 to respond to the Office Action mailed February 6, 2007 with the required fee authorization. No further fees are believed due. If any additional fee is due, the Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 03-2775, under Order No. 12810-00057-US from which the undersigned is authorized to draw.

Respectfully submitted,

By 

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